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Procedia - Social and Behavioral Sciences 170 (2015) 575 – 585

Procedia
Social and Behavioral Sciences

AcE-Bs2014Seoul
Asian Conference on Environment-Behaviour Studies
Chung-Ang University, Seoul, S. Korea, 25-27 August 2014
"Environmental Settings in the Era of Urban Regeneration"

Relationship between Support of Social Activities and Fear of Crime in Iran Residential Complex

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Abstract

Fear of crimes has been led to restrictions on freedom residents and prevented them from participating in the public domain. One of the strategies to overcome the crime is (CPTED) which emphasizes on decreasing delinquencies by urban design and through modelling it's principles in public open spaces. Therefore, a survey on the perception of the Relationship between Support of Social Activities and Fear of Crime among 60 residents in Omid Residential Complex was conducted. The results found that the usage location, providing usage in the abandoned spaces and usage combination, have the highest impact on the residents' place attachment, respectively.

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Peer-review under responsibility of Centre for Environment-Behaviour Studies (cE-Bs), Faculty of Architecture, Planning & Surveying, Universiti Teknologi MARA, Malaysia.

Keywords: CPTED viewpoint; fear of crime; residential complex; social activity

1. Introduction

Crime in residential Complex has been a social problem that has an improper influence on the life of thousands of residents every year (Abdul Mohit & Elsawahli, 2010). Fear of crimes (FOC) has been led to restrictions on freedom of traffic of residents and prevented them from attending and participating in the public domain and the open spaces (Newman, 1972). Nowadays, most of the designed residential areas which were the center of social interaction due to the lack of public oversight have become the merely

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Peer-review under responsibility of Centre for Environment-Behaviour Studies (cE-Bs), Faculty of Architecture, Planning & Surveying, Universiti Teknologi MARA, Malaysia.
doi:10.1016/j.sbspro.2015.01.059

passing way or lack of social life spaces which residents do not have a sense of belonging in these spaces (Karim & Abdul Rashid, 2010).

Nowadays in design processes of a residential Complex, it is better to pay attention to the possible potential of residential complex, buildings and open spaces in reducing or preventing crimes. Security issue has always considered as one of the human basic needs and one of the ways to support social capital. Many studies indicate that the physical environment can increase or decrease opportunities for crime (Newman, 1972). Researchers such as Oscar Newman, Jane Jacobs, Mary and other relevant experts in the field of urban planning, architecture and social sciences, created documentary theories such as the theory of defensible space and crime prevention through environmental design (Jeffery, 1974, Newman, 1996). One of the strategies to overcome the crime by environmental design is (CPTED) that through modelling its principles and appropriate design of public open spaces can effectively reduce these problems (Jeffery, 1974, Crowe, 2000, Newman, 1972).

CPTED is one of the most effective ways to reduce FOC. Therefore, some researchers investigated the relationship between physical attributes and attitudes of CPTED and FOC. CPTED perception has a positive relationship with FOC while CPTED practices have a negative relationship with FOC (Sakip et al., 2012a). Safe city concept is one approach and as part of liveable city's theory focuses on the crime problem in urban areas (Anuar et al., 2012). In recent years, it is also suggested that community crime prevention has some effect to an activation of local communication and improvement of residents' sense of security (Shibata et al., 2010). Research have provided evidence that areas characterized by limited prospect, blocked escape and high concealment evoke fear and those physical environmental characteristics associated with higher levels of crime (Sakip et al., 2012b).

This study with focusing on just one of the CPTED dimensions attempts to demonstrate the impacts of supporting the social activities of residents on the place attachment and socialization. Therefore, the objectives of this study are to assessment some tangible effect of CPTED that can easily tackle crime with environmental design and provide an appropriate approach for reducing urban crimes in public open spaces and residential complex for improving quality of life and satisfaction. We believe that increase of residents' attendance and their variety of activities will reduce criminal opportunities.

2. Literature Review

Crime is an act punishable by law, as being forbidden by statute or injurious to the public welfare (Abdul Mohit & Elsawahli, 2010). It is a serious problem in cities all over the world. Urban violence generates a fear of crime. Crime and the fear of crime are serious threats to the stability, social climate of cities, sustainable and economic development, the quality of life and human rights (Karim & Abdul Rashid, 2010). The urban environment is like a magnet pulling all types of human activities including the negative and illegal activities which have put a lot of stress on the urban community which developed into a type of fear known as fear of crime. Fear of crime, or its opposite, feelings of personal safety, is the dominant predictor of neighbourhood satisfaction (Karim & Abdul Rashid, 2010). Fear of crime has become a serious social problem demanding scientific understanding and social reaction (Sakip et al., 2013). Increasing the public confidence on their safety is crucial (Soh, 2010). According to the national police agency, the number of crime prevention volunteer organizations has been increased by more than ten times (Shibata et al., 2011).

In general, research shows that the fear of crime has influenced by five factors, which are the physical environment, social environment, victimization, crime-specific, and crime problems in the neighborhood. The physical environment caused by physical planning and design and is believed to give a significant effect on fear of crime (Abdullah et al., 2012).

Two Canadian researchers Wekerle and Whitzman (1995) expressed three factors to enhance safety and security in Urban Space:

1) Awareness of the environment, 2) Visibility by others, 3) Easy aid access if needed Petrella (2004) arises three main modalities in a category of crime prevention:

1) Law enforcement, 2) Identification at risk groups and Performance Social prevention proceedings and 3) planning and physical management

General knowledge and empirical evidence showed that reductions in fear and fear of crime can achieve through environmental design. Crime occurs more in some environments which can easily evoke higher levels of fear than others (Cinar & Cubukcu, 2013).

The need for security in urban areas formed the documentary theories like defensible spaces and crime prevention through environmental design (CPTED) (Pourjafar et al., 2008). Crime prevention theories have been developed by three schools of thoughts. Although these theories weaved from a different aspect, they became woven together through time as they support mutual concepts. The three schools of thoughts are as follows (Abdul Mohit & Elsawahli, 2010):

- Oscar Newman (defensible space) that includes that access to the area should be restricted to legal users. According to the Newman definition, Defensible space is a term for a series of space systems, including real and symbolic barriers, defined spheres of influence and the possibility of further care that together, make the media controllable for population. In this area, criminal activities occur less. Defensible space investigates the social behavior from the standpoint of planning, designing and architecture (Newman, 1996).
- Jeffery's crime prevention through environmental design (CPTED) contains a mutual support to defensible space theory and takes it a step further by the manipulation of the physical environment to influence behavior to deter crime. The Crime Prevention through Environmental Design (CPTED) approach emphasizes on the elimination of opportunities for the occurrence of crime through planning and design (Jeffery, 1974). This theory focused on the built environment and considered convict as a rational person who measures the benefits and costs of crime and just In case of further interest he/she will commit a crime (Seigel, 2001). In other words, crime is a choice. This choice may be influenced by heredity or personal background, but these choices are a direct result of the opportunity, the evaluation of costs and the benefits of committing a crime. Any person may be tempted to commit a crime. People in the evaluation of costs and benefits consider the risk of arrest more than the Severity of punishment. Influence factors of committing a crime are easier than fighting white human weaknesses (Clarke, 1997). Our surroundings are not the only areas where crimes occur, but the structure and space designing can lead to the prevention of criminal activity and improve the urban security (Wekerl and Whitzman, 1994).
- Clarke's situational crime prevention takes both theories into consideration while including management and design interventions to reduce crime. The theory develops social and economic strategies to achieve a sustainable environment (Abdul Mohit & Elsawahli, 2010).

Table 1. History of Intellectual ideas and Global impacts (Pourjafar et al., 2008)

Pundits Researchers	Findings
- Jacobs in *"The Death and Life of Great American Cities"* book	Need safe streets in the city
	Isolation and identification of public and private spaces
	Application diversity and mixing them in the city
	Efficient use of urban pedestrians to reduce the possibility of crime Occurrence .
- Jeffery in *"Crime Prevention through Environmental Design"* book	Reduce the natural potential of crime in urban areas.
- Newman *in "Crime Prevention Through Urban Design Defensible Space"* book	Citizens should see and be seen (public supervision
	Transparency and exposure in public spaces.
	People Enthusiasm to report and deal with violations and crimes.
- Wilson & Knelling	broken windows theory
-Bran Ingham in "Environmental Criminology"	Reduce the inherent potential of crime in urban areas.
	refers to the ravages of the built environment
	Emphasis on Incompetence of rules and standards of urban designing and architecture.
	The role of natural barriers to reduce crime opportunities
- Crowe and the responsible for CPTED international training programs "*Advanced Crime Prevention through Environmental Design*" book	present strategies
	Holding a series of International Conferences for CPTED

2.1. CPTED dimensions and victimization

CPTED based on five main components: 1) territoriality, 2) surveillance, 3) access control, 4) maintenance and target hardening and, 5) support activity:

2.1.1. Territoriality

Territorial behaviour is an act of personalisation a place or object and communication that is owned by a person or group (Marzbali et al., 2012). Territoriality can be defined as a sense of ownership by legitimate users of space, thereby reducing opportunities for offending by discouraging illegitimate users (Sakip et al., 2012a).

2.1.2. Surveillance

If people feel that the others observe them, they will reduce the possibility of committing a crime. There are a variety types of surveillance including natural surveillance (residents' opportunities to see from windows), formal or organized surveillance and mechanical surveillance Strategies (street lighting and cameras) (cozens, 2008). In this regard, it seems that direct surveillance over urban areas has to be

possible for citizens to prevent the Creation of invisible or non-accessible places that can easily increase the probability of committing a crime (Pourjafar et al., 2008).

2.1.3. Access control

Access control reduces the crime by denying access to potential targets (Sakip et al., 2012a). In Site designing, paying attention to the location and accessibility of the inputs and outputs of the site is important to define the kind of transparency in the site (Pourjafar et al., 2008).

2.1.4. Maintenance and target hardening

Home maintenance may enable residents to keep up their home and express stronger, which is related to crime and other predictors of incivilities (Marzbali et al., 2012). Whit proper maintenance and management of urban furniture, signs and lighting, can Optimize the costs of urban areas in addition to reducing crimes (cozens, 2001).

2.1.5. Support activity

Support activity, can be defined as the use of design to encourage patterns of usage in public spaces (Sakip et al., 2012a). It is the programmes or activities that involve the local community to create a secure and safe space (Sakip & Abdullah, 2010). It increases the amount of human supervision in the environment and decrease Criminals Presence. This approach significantly includes components such as territoriality, access control and surveillance (Crow, 200).

Nevertheless, the measurement of all these components of CPTED in research is still very limited. The majority of previous research focused mainly on a single component of CPTED alone, for example, territoriality, surveillance, access control and, maintenance and target hardening (Sakip et al., 2012b).

Mohit et al. (2010) measured all five of the CPTED components in their research. This paper examines the effects of physical design on the occurrences of crime in Taman Melati residential area of Kuala Lumpur City and tests the effects of the built environment on the possibility of crime reduction through physical planning measures. Sakip & Abdullah (2010) and Sakip et al. (2012a) conducted an evaluation of four CPTED components, namely, territoriality, surveillance, support activity and maintenance. The main objective of this research paper was to identify the measurement of the CPTED (Crime Prevention through Environmental Design) components. Abdullah et al. (2012) on the other hand, undertook a research based on three CPTED components, namely, surveillance, maintenance and territoriality. The findings of this study indicate that CPTED can be best measured using three domains namely Territoriality, Surveillance and Maintenance & Target Hardening.

2.2. Hypotheses

Between these five proposed CPTED dimensions, the research focuses on supporting social activities on reducing crime and fear of crime in housing complexes were less likely than other parameters. Through the support of social activities, we can encourage people to involve more in community activities. In terms of crime prevention methods, it cannot be denied that good relationship between residential community members is vital in ensuring crime rate reduction. This relationship refers to the social interaction within the local community members.

In the environment design, we try to increase the participation of people and residents in the area to increase Surveillance and informal social control. Encouraging people to perform certain activities in public spaces can prevent committing a crime. The presence of a Recreational space or library can increase Surveillance, place attachment and to him replaced, social interaction. So the kind of Defined

usage our definition about these usages, combination different usage, usage location and providing usage in the abandoned spaces can improve security and socialization.

This study attempts to demonstrate the impacts of supporting the social activities of residents on increasing security and socialization. We believe that increase of residents' attendance and their variety of activities will reduce criminal opportunities. In this paper, the main hypotheses are as follows:

Table 2. The main hypotheses of this paper based upon the effects of supporting activity in reducing the fear of crime.

		Hypothetic
1	Type of usage	The defined types of usage in a residential complex affect the sense of security and socialization. Residents feel safer and stay more next to some particular usages. Commercial usage increases the sense of security and socialization more than the other usages.
2	Combining different usages	Some usages have a different effect on people when they use independently in compare to place alongside the other usages. For example, In the park, the amount of residents' socialization in is less than a park with library and residents feel more secure. This issue can be examined in two parts: local and ultra-local.
3	Place of usage	In residential complexes, we can locate usages in the center, around or between the buildings. The place of usage's effect Residents usage, socialization and sense of security. The best place for Locating usages is in the center of residential complexes. Service's usages such as library and gym can increase the sense of security among residents.
4	Providing usage in the abandoned spaces	Unused spaces are the most talented spaces for occurring crime and a sense of security and socialization is less than other spaces. The kind of usage that can define in these spaces can be very efficiently to reach the objective of this paper that is increasing the sense of security and socialization.

3. Methodology

The research in the field of theoretical literature is an applied research in the area of field studies is a descriptive – survey method. The hypothesis has been examined through selecting the case study. The case study, Omid residential complex, is located in northeastern of Tehran. This complex is built in 1976. 1946 households and 9000 people live in this area. The main reasons for choosing this case study are as follows:

- This complex has 76% open spaces, but they are not useful and these spaces are known as abandoned spaces or abandoned parks that socialization and sense of security is very low.
- Omid residential complex is a significant sample of complex that residents can find all kind of activity in it. So it is an independent complex with a different kind of usages in different places in combination with residential building.

Data have been collected through documental studies, observations and questionnaires. To obtain the environmental information, 60 questionnaires were distributed among residents of the district. The Likert scale was used to analyze the questionnaire data and obtain the mean of each variable to compare and evaluate them together. The data were analyzed using SPSS software.

4. Results and Discussion

Residents' information shows that 43.3% of respondent are male, and 56.7% are female, and 50% have master or Ph.D. degree (Table 3).

Table 3. Respondents' information (sex and educational)

Respondents information	Sex			Education				
	male	female	Total	High school	College	Bachelor	Master/ PhD	Total
Frequency	26	34	60	8	1	21	30	60
Percent	43.3	56.7	100	13.3	1.7	35	50	100

The respondents were asked to respond to the three types of questions:

1. One type of question was related to their perception about the effect of combining different usage, location of usage and using abandoned spaces in socialization and the sense of security. The survey's questions were asked in two ways: their general opinion about these effects (Table 4) and the effects of these changes in their complex (Table 5).

Table 4. Respondents' perception about the effect of combining different usage, Location of usage and Using abandoned spaces in socialization and the sense of security.

		Strongly agree		agree		disagree		Strongly disagree		Mean	Std. Deviation
		N	%	N	%	N	%	N	%		
Security	Combining different usages	12	20	37	61.7	11	18.3	0	-	3.83	.960
	Location of usages	34	56.7	26	43.3	0	-	0	-	4.57	.500
	Use abandoned spaces	24	40	36	60	0	-	0	-	4.40	.494
Socialization	Combining different usages	24	40	29	48.3	7	11.7	0	-	4.17	.924
	Use abandoned spaces	16	26.7	34	56.7	10	16.7	0	-	3.93	.972

Table 5. Respondents' perception about the effects of combining different usage, location of usage and using abandoned spaces in socialization and the sense of security level in their residential complex.

		Very much		Much		Low		Very low		Mean	Std. Deviation
		N	%	N	%	N	%	N	%		
Security	Combining different usages	22	36.7	29	48.3	9	15	0	-	4.07	.989
	Location of usages	33	55	23	38.3	4	6.7	0	-	4.42	.809
	Use abandoned spaces	24	40	28	46.7	8	13	0	-	4.13	.965
Socialization	Combining different usages	18	30	41	68.3	1	1.7	0	-	4.25	.628
	Use abandoned spaces	15	25	35	58.3	7	11.7	3	5	3.87	1.081

According to the mean of each question, respondents believe that the location of usages has the highest effect and combining different usages has the least effect in security in general. But in their complex combining different usages has the highest effect in socialization.

Table 6. The Correlation between respondents' perception in general and their residential complex.

Correlations	Security			Socialization	
	Combining different usages	Location of usages	Use abandoned spaces	Combining different usages	Use abandoned spaces
Pearson Correlation	.869	.538	.668	.453	.846
Sig. (2-tailed)	.000	.000	.000	.000	.000

The significance of results is 0.00 and less than 0.05, so the results are acceptable. The questions about respondents' perception for understanding the effect of combining different usages in security in general and in their complex have the highest significance whit each other. Afterward the effects of using abandoned spaces in socialization use abandoned spaces in security, location of usages in security and combining different usages in socialization have the highest correlation in priority.

2. Another type of question is about the effect of usage's location in socialization and sense of security. For these questions, respondents had to choose between the centers, around and between of the residential buildings (we showed them in the picture). Respondents could also choose "no different" item to show their incuriosity. According to Table 7, it is clear that the location of usages has almost equal effect in the sense of security and socialization.

Table 7. Respondents' perception about the effect of usage's location in socialization and the sense of security.

Frequency for place	center		around		between		No different	
	N	%	N	%	N	%	N	%
security	24	40	11	18.3	17	28.3	8	13.3
socialization	23	38.3	11	18.3	17	28.3	8	15

3. In another type of question, respondents had to choose different kinds of usages that they have more sense of security or socialization in priority. They had to numbered different kind of usages such as residential building; commercial building, park, services building, educational building and religious building from 1-5 or 1-6 (depend on the number of items).

Table 8. Respondents' Priorities about the kind of usages that can increase their sense of security or socialization.

			Residential building	Commercial building	Park	Services building	Educational building	Religious building	mean
			mean	mean	mean	mean	mean	mean	
Security	Kind of building		5.03	3.03	2.25	2.42	3.55	4.77	3.51
	Combining different usages		-	3.25	1.98	2.70	3.52	3.55	3
	Location	center	-	3.30	2.23	3.73	2.77	2.97	3
		around	-	3.72	2.50	3.45	2.73	2.53	2.99
		middle	-	3.43	2.27	3.35	3.13	2.82	3
	Use abandoned spaces		3.20	4.22	2.17	3.78	3.88	4.02	3.55
Socialization	Kind of building		2.75	4.23	4.75	3.95	2.97	2.32	3.50
	Combining different usages		-	3.88	3.10	2.98	2.68	2.27	2.98
	Use abandoned spaces		2.48	4.58	3.67	3.23	3.52	3.53	3.50

Respondents feel more secured next to residential and religious building and less next to the park, but their socialization is contrariwise different. People have the highest sense of security in the house next to a religious building and least in the house next to the park. But their socialization is more in commercial building and park and is less in a residential complex next to a religious building and for increasing security and socialization resident prefer to build commercial building in abandoned spaces in their residential complex. There is not any significant different in people's tendency about the kind of building that can increase the sense of security in different places.

5. Conclusion

The results of the research showed that Support activity is one of the CPTED dimensions for increasing resident's security. The main conclusions are as follows:

- For increasing residents' security, the first concentration has to be on finding the best location for a usage in the residential complex. Then we allocate the usages for abandoned spaces and create activity

in them. Also, we can combine different usages with each other. For example put a library or gym in a park can easily reduce the criminal opportunities.

- The results of this research showed that the best place for locating the usages is in the center of residential complexes. But it is better to put some usages with local users in the center and put another around the residential buildings. The place of usages is much more important that the kind of them. In general, building services and commercials buildings in a different part of a residential complex can easily increase the sense of security level.
- In Omid residential complex, parks and gyms are in the center, and commercial building is located around of residential buildings. For increasing security, it is better to combine commercial and services usages in park and locate them in the center of complexes.
- Since there are a lot of abandoned spaces in Omid residential complex that are used as a park. The socialization in these spaces is high, but it could not increase the security of these spaces. The results showed that using abandoned spaces have more effect in increasing security than socialization. So it is recommended to build commercial, religious, educational, services and residential buildings in these spaces respectively.
- Residents feel more secure next to the residential building and less secure next to the park. In locating different usages next to residential building, religious building, educational building, commercial building and services building can increase the sense of security in a residential complex respectively.

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